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14 UNITED STATES DISTRICT COURT
15 NORTHERN DISTRICT OF CALIFORNIA
16 SAN JOSE DIVISION

17 CISCO SYSTEMS, INC.,

18 Plaintiff,

19 v.

20 ARISTA NETWORKS, INC.,

21 Defendant.
22
23
24

Case No. 5:14-cv-05344-BLF (NC)

**ARISTA'S RESPONSE TO CISCO'S
SUBMISSION RE PROTECTABLE
ELEMENTS**

Dept: Courtroom 3 - 5th Floor
Judge: Hon. Beth Labson Freeman

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26 **DOCUMENT SOUGHT TO BE SEALED**
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TABLE OF CONTENTS

	<u>Page</u>
I. OVERVIEW	1
II. CISCO’S ASSERTED WORKS MUST BE PROPERLY DEFINED.....	2
III. PROPOSED CATEGORIES FOR DISSECTION	3
A. Unprotectable Aspects of the Asserted CLI Commands	4
1. Pre-existing industry terminology.....	4
2. Elements dictated by external constraints.....	5
3. Unprotectable words and short phrases	8
4. Conventional command syntax that Cisco copied from other sources.....	9
5. “Commands” that are not accepted by any Cisco or Arista switch	9
6. Any purported selection or arrangement of commands that is not grounded in Cisco’s actual works or that Cisco did not disclose in discovery	10
B. Unprotectable Aspects of the Asserted Hierarchies.....	10
1. Hierarchies that were created for litigation.....	11
2. The idea of grouping commands by their initial words	11
3. Hierarchies that contain no expression separate from their function.....	11
C. Unprotectable Aspects of the Asserted Modes and Prompts	12
1. The names of particular modes and prompts	12
2. Any “selection” or “arrangement” of modes and prompts that is not grounded in an actual work or that Cisco did not disclose in discovery	12
3. The idea of making certain commands available only in certain modes	13
D. Unprotectable Aspects of the Asserted Command Responses	14
E. Unprotectable Aspects of the Asserted Help Descriptions	15
1. Pre-existing industry terminology and elements dictated by external constraints	15
2. Unprotectable words and short phrases	16

TABLE OF CONTENTS
(continued)

		<u>Page</u>
3.	Any “selection” or “arrangement” of help descriptions that is not grounded in an actual work or that Cisco did not disclose in discovery	17
4.	The idea of an interactive help system in a CLI	17
F.	Unprotectable Aspects of the Asserted Manuals	18
G.	Additional Unprotectable Aspects of the Asserted Works	18
1.	Cisco’s overall selection of CLI elements	18
2.	Common CLI features and functions	18
IV.	SCOPE OF COPYRIGHT PROTECTION	19

As the Court directed in chambers on September 9, 2016, Arista submits the following response to Cisco's list of "protectable elements" from its copyrighted works. *See* ECF 552. This response identifies the categories of elements that the Court should find unprotectable, so that the jury evaluates only protectable elements of Cisco's works when it considers infringement and Arista's defenses. This response also identifies the key evidence relevant to that dissection. As the Court instructed, Arista will present its full legal arguments on these issues after the meet-and-confer process in its brief to be filed November 8.

I. OVERVIEW

The bulk of what Cisco claims as protectable is not, and much of it has no basis in actual Cisco works. As a preliminary matter, the Court must decide what works the jury must compare. To the extent that Cisco has now identified its asserted "works"—which it labels Cisco's "user interface" (ECF 552-1 at 1)—those "works" remain undefined, were never registered with the Copyright Office, and have no separate existence apart from the operating systems that Cisco actually registered. Moreover, there is no evidence that the portions of the "works" asserted here were authored by Cisco rather than pieced together purely for this litigation. The Court should hold that the works at issue are the computer programs and associated user documentation that Cisco registered, as controlling law requires.

Next, the Court must decide which asserted elements of those works are *not* protectable. For each category of CLI elements that Cisco asserts—commands, hierarchies, modes and prompts, responses, and help descriptions—the evidence shows that most of those elements are unprotectable for one or more of the following reasons:

1. *Lack of originality*—elements were either taken from pre-Cisco sources or they lack the creative expression required for copyright protection;
2. *Words and short phrases doctrine*—most of the asserted CLI elements are unprotectable as discrete elements because they are words or short phrases;
3. *Unprotectable subject matter*—purely functional aspects of the CLI, including unprotectable ideas, systems, and methods of operation are not copyrightable under 17 U.S.C. § 102(b);

4. *Scenes-a-faire*—elements are not protectable because they flow naturally from industry standards and terminology, and the functional constraints and practical realities of building a useful CLI.

Likewise, nothing in Cisco’s selection or arrangement of CLI elements is protectable—to the extent that Cisco and its expert have even articulated such a theory. Cisco’s selection and arrangement of elements is purely functional, lacks any creative expression, and fails the originality requirement.

Next, the Court must decide the degree of protection to be given to Cisco’s asserted works. In light of the works’ factual nature and the external constraints that govern them, there is only a narrow range of possible expression. The Court should therefore hold that Cisco is entitled only to “thin” copyright protection and must satisfy the “virtual identity” standard to prove infringement.

Finally, based upon the outcome of dissection, the Court must adopt a workable trial plan. Cisco’s 130-page submission of allegedly individually protectable phrases and elements is too large and unwieldy to try in an orderly way in the time currently allotted for trial, and Cisco’s proposed verdict form is inadequate for the jury to resolve those claims. Arista will address this issue further at the Pre-trial Conference.

II. CISCO’S ASSERTED WORKS MUST BE PROPERLY DEFINED

Cisco’s submission feints at defining the copyrighted “works” that must be compared in the infringement analysis, but its vague descriptions leave the question unresolved, and it ignores controlling law. (ECF 552-1 at 1.) Cisco apparently seeks to compare Cisco’s and Arista’s “user interfaces” as the copyrighted works—but this is improper, because Cisco has never registered its “user interface” (which in any event varies among the different operating systems that are the subjects of Cisco’s twenty-six asserted registrations), and that “interface” is undefined and has no separate existence apart from the operating systems as a whole. *See* Black Rpt. (ECF 379-33) ¶ 690; *id.* ¶ 702 (no separate market for “the CLI”).

As Arista will explain further in its dissection briefing, Cisco did not receive a separate registration for its user interface by virtue of registering its operating system. “[A]ll

copyrightable expression owned by the same claimant and embodied in a computer program, or first published as a unit with a computer program, including computer screen displays, is considered a single work,” and thus Cisco cannot assert its user interfaces as separate works distinct from the computer programs of which they are a part. 53 Fed. Reg. 21817 (1988 Copyright Office policy statement). For a work to be separately asserted in litigation, it must be one that is truly independent, that “‘can live [its] own copyright life’ and that ‘has an independent economic value and is, in itself, viable.’” *Monge v. Maya Magazines, Inc.*, 688 F.3d 1164, 1180 (9th Cir. 2012) (considering photographs as works; quoting *Columbia Pictures TV, Inc. v. Krypton Broad. of Birmingham, Inc.*, 259 F.3d 1186, 1193 (9th Cir. 2001) (considering TV show episodes as works)); *NXIVM Corp. v. Ross Inst.*, 364 F.3d 471, 480-81 (2d Cir. 2004) (rejecting effort to treat “modules” within a manual as separate works); *Sony Computer Entm’t Am., Inc. v. Bleem, LLC*, 214 F.3d 1022, 1028 (9th Cir. 2000) (dismissing video game screen shots as “an insignificant portion of the complex copyrighted work as a whole”). The proper works for comparison here are Cisco’s registered software programs: each registered version of Cisco’s IOS, IOS-XR, IOS-XE, and NX-OS operating systems should be compared to Arista’s EOS.

Similarly, Cisco should not be permitted to lump all of its separate user manuals together as a single “work” consisting of “associated technical documents” (ECF 552-1 at 1)—or even worse, to present cherry-picked excerpts from those documents as a single “work.” Instead, each discrete manual must be compared to the allegedly infringing one to evaluate Cisco’s infringement claims. (In either case, as Arista will prove to the jury, the alleged copying from the manuals is purely *de minimis* and cannot amount to actionable infringement. *See VMG Salsoul, LLC v. Ciccone*, 824 F.3d 871, 878 (9th Cir. 2016).)

III. PROPOSED CATEGORIES FOR DISSECTION

Arista identifies below the issues requiring analytic dissection for each of the categories of allegedly protectable expression identified in Cisco’s submission (ECF 552), as well as core evidence supporting Arista’s dissection proposals. For ease of reference, this discussion tracks the order of Cisco’s submission.

1 **A. Unprotectable Aspects of the Asserted CLI Commands**

2 **1. Pre-existing industry terminology**

3 Cisco's extensive use of industry terminology drawn from published industry standards
4 and everyday industry parlance is unprotectable because it is not original or creative expression.
5 *See Matthew Bender & Co. v. West Pub. Co.*, 158 F.3d 674, 682 (2d Cir. 1998) ("creative spark"
6 absent where "industry conventions or other external factors" dictate selection, or expression is
7 purely "obvious, garden-variety, or routine").

8 The Supreme Court's decision in *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S.
9 340 (1991), provides the framework for filtering out these unprotectable elements. There, the
10 Court held that names, addresses, and telephone numbers were unprotectable elements of a phone
11 book, but it considered separately whether the plaintiff had "selected, coordinated, or arranged"
12 those unprotectable elements in an original way. *Id.* at 362. Similarly, this Court should instruct
13 the jury that Cisco is not entitled to copyright protection for its use of pre-existing industry
14 terminology (such as acronyms and names of protocols and parameters taken from published
15 industry standards), but it may claim originality in its selection, coordination, or arrangement of
16 those unprotectable elements (subject, of course, to the Court's other dissection rulings and
17 Cisco's disclosures in discovery).

18 Relevant evidence will include:

- 19 • Arista's expert John Black confirms that the vast majority of Cisco's command
20 terms were taken directly from published industry standards or conventional
21 industry terminology. *See, e.g.*, Black Am. App. K (ECF 381-61) (charting
22 standards-based and conventional terms in Cisco commands); Declaration of
23 Ryan Wong in Support of Arista's Response to Cisco's Submission Re
24 Protectable Elements ("Wong Decl.") Ex. 1 (Tr. Ex. 9044) (charting standards-
25 based terms); *id.* Ex. 2 (Tr. Ex. 9043) (charting common industry terms); Black
26 Rpt. App. A (ECF 381-2) (commands from IETF standards); Black Rpt. App. B
27 (ECF 381-3) (commands from IEEE standards); *see infra* re functional
28 constraints.

- Functional command words such as “banner”, “boot”, “clock”, “clear”, “enable”, “erase”, “load”, “set”, “show” and “terminal” were used in pre-existing command languages and are not original to Cisco. *See, e.g.*, Wong Decl. Ex. 3 (Tr. Ex. 9045) (charting legacy command terms in asserted commands); Black Rpt. (ECF 379-33) ¶ 555 (“clear”); *id.* ¶¶ 559–60 (prior use of “show” and “set” commands); *id.* ¶ 565 (“show” and “clear” commands). Almeroth Rpt. (ECF 508-2) ¶ 261 (conceding terms “show,” “clear,” “help,” “ip,” “no,” “arp,” and “bgp” all “existed before Cisco”).

- [REDACTED]
- Arista MSJ Opp. Ex. 63¹ (ECF 512-8) (compilation of deposition excerpts showing Cisco employees consulted standards when authoring commands); MSJ Opp. Ex. 24 (ECF 509-11) (Cisco wanted commands that are “self-explanatory” and based on “terminology you are using from the networking world”); Arista MSJ Opp. Ex. 26 (ECF 378-29) at 439 (Cisco document); Arista MSJ Opp. Ex. 27 (ECF 378-30) at 646–647 [REDACTED]

2. Elements dictated by external constraints

Cisco cannot claim protection in many of the words and much of the syntax of the asserted CLI commands because they flow directly from the commands’ functional nature and the industry’s preferences and expectations. *See* 17 U.S.C. § 102(b); *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1444 (9th Cir. 1994); *Mattel, Inc. v. MGA Entm’t, Inc.*, 616 F.3d 904, 913 (9th Cir. 2010). Although this question is too complex to be suitable for decision as part of analytic dissection at the level of each of the 508 asserted multi-word commands, the Court should instruct the jury that Cisco is not entitled to copyright protection for any portion of any

¹ References to “Arista MSJ Opp. Ex.” refer to exhibits to the Declaration of Ryan Wong ISO Arista’s Opposition to Cisco’s Motion for Summary Judgment (ECF 380-1). *See also* ECF 508 (publicly re-filing certain exhibits pursuant to ECF 487).

1 CLI command that the jury finds was constrained by the functional demands of creating a CLI
2 that would be acceptable to the industry.

3 In addition to the evidence identified above, relevant evidence will include:

- 4 • Dr. Black’s analysis shows that external constraints severely restricted Cisco’s
5 options in creation of its CLI. *See, e.g.*, Black Rpt. (ECF 379-33) ¶ 644 (industry
6 constraints on development of commands); *id.* ¶ 645 (constraints from user
7 demand for standard industry acronyms, self-explanatory commands, internal
8 consistency across commands, extendable commands, absence of “collisions” in
9 abbreviated commands); *id.* ¶ 646 (commands are short-cuts for descriptions of
10 functionality, and it would make no sense to name them other than by using the
11 common terminology used in the industry); *id.* ¶¶ 647–48 (discussing evidence of
12 customer demand for use of familiar terminology); *id.* ¶ 649 (very few word order
13 options available given short length of commands); *id.* ¶ 650 (constraints on
14 commands from limitations of standard “English usage, brevity, clarity,
15 extensibility and efficiency in the parsing of the commands”); *id.* ¶¶ 651–666
16 (additional detail on these constraints); *id.* ¶¶ 543–642 & Arista MSJ Opp. Ex. 63
17 (ECF 512-8) (Cisco authors consulted industry standards before incorporating
18 standards-driven terms into CLI commands); Black Rebuttal Rpt. (ECF 379-31)
19 ¶ 9 (rejecting Almeroth opinions). *See also* Arista MSJ Opp. Ex. 4 (Tony Li Dep.
20 Tr.) (ECF 508-22) at 32-38, 41-49, 52-55 (discussing industry standards used at
21 Cisco), 107-110 (explaining industry-wide use of standards-based acronyms).
22 Cisco even used multi-word industry commands that predated Cisco and are not
23 protectable under its copyrights, including the commands “show users” and
24 “terminal length.” Black Rpt. (ECF 379-33) ¶ 571 (pre-Cisco use of “show users”
25 and “terminal length” commands).
- 26 • Early CLI decisions also constrained Cisco’s later choices. *See, e.g.*, Arista MSJ
27 Opp. Ex. 4 (ECF 508-22) at 126–28 (rule in CLI design at Cisco was to follow the
28 “principle of least surprise”); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 72–78, 116–

18, 122 (need to follow past practices for consistency and ease of use); Black Rpt (ECF 379-33) ¶¶ 602–13; Arista MSJ Opp. Ex. 17 (ECF 378-7) at 69–70

MSJ Opp. Ex. 25 (ECF 378-28) at 4

MSJ Opp. Ex. 26 (ECF 378-29) at 439; MSJ Opp. Ex. 27 (ECF 378-30) at 646–647

- CLI commands are a functional part of a system or method of operation: digital “knobs” turning on or off, or setting, their respective functionality in the operating system software. *See, e.g.*, Arista MSJ Opp. Ex. 33 (ECF 511-1) at 57:9–13 (“the command is the knob” for a setting); Arista MSJ Opp. Ex. 4 (ECF 378-7) at 236:22–24 [REDACTED]; *id.* at 184:7–185:3; Arista MSJ Opp. Ex. 2 (ECF 508-21) at 75:12–76:8, 100–01 (authors named command by “what it did,” borrowing standard terminology), 152:24–153:4 (commands used to “toggle an interface up or down”); Black Rpt. (ECF 379-33) ¶ 523; MSJ Opp. Ex. 19 (ECF 380-20) [REDACTED]; MSJ Opp. Ex. 24 (ECF 509-11) at 194 (command words should be “self-explanatory,” using “terminology . . . from the networking world”); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 64–73; Black MSJ Decl. Ex. 32 (ECF 381-32); Black MSJ Decl. Ex. 61 (ECF 381-61).
- Other companies’ widespread use of identical CLI commands confirms the impact of functional constraints and the narrow range of available expression. *See, e.g.*, Black Rpt. (ECF 379-33) ¶ 191; Black Am. App. G (ECF 381-41); Wong Decl. Ex. 4 (Tr. Ex. 9039) (multiple top Cisco competitors besides Arista use more than half of the asserted commands); *id.* Ex. 5 (Tr. Ex. 9041) (multiple other

networking companies use 412 of the asserted commands; 5 to 18 other companies use 289 of the commands); Black Rpt. (ECF 379-33) ¶ 274 & Black Am. App. H-DE (ECF 381-47) (Dell also supports at least 268 of the asserted commands); Black Rpt. (ECF 379-33) ¶¶ 182, 275–300 & Black App. I (ECF 381-28) (overall, Dell shares more than 16,000 commands with Cisco); Wong Decl. Ex. 6 (Tr. Ex. 9048) (charting 1600+ multi-word commands common to Dell and Cisco); Black Rpt. (ECF 379-33) ¶¶ 179–81 (summarizing other vendors’ use of overlapping commands); Arista MSJ Opp. Ex. 4 (Li Dep. Tr.) (ECF 508-22) at 154–163 (Procket Networks made its CLI “bug-for-bug compatible” with Cisco’s, with no complaint from Cisco); Wong Decl. Ex. 7 (Kasten (Juniper Networks) Dep. Tr.) at 15:5-16:7, 16:24-17:3, 17:12-17 & 18:1-5 (), 25:18-27:4, 29:5-22, 30:18-22 & 33:15-34:4 (), 38:21-40:8 & 43:3-17 (); Arista MSJ Opp. Ex. 5 (Cato (Dell) Dep. Tr.) (ECF 509-1) at 35:4-36:8 (similarities of Dell and Cisco CLI), 39:4-16 (customers expect familiar command syntax), 47:15-48:18 & 50:5-52:4 (use of Cisco commands at customer request), 60:11-14, 61:15-19 & 62:24-65:13 (Dell, Cisco, others all use same industry standard commands); Wong Decl. Ex. 8 (Cato (Dell) Dep. Tr.) at 42:8-43:3 (), 46:1-21 (discussing), 71:21-72:6 (), 96:7-22 (),

3. Unprotectable words and short phrases

Cisco is not entitled to copyright protection for any of its individual multi-word commands under the words and short phrases doctrine. *See* 37 C.F.R. § 202.1(a); *Narell v.*

1 *Freeman*, 872 F.2d 907, 911 (9th Cir. 1989). All of its asserted multi-word commands are no
 2 more than five words long—and 420 of them are three words or fewer.

3 Relevant evidence will include:

- 4 • ECF 552-1 at 3–33 (Cisco’s listing of asserted commands). *See also* Black
 5 Rebuttal Rpt. (ECF 379-31) ¶¶ 123–24 (188 asserted commands are only two
 6 words; 208 are three words; 420 are three words or fewer).

7 **4. Conventional command syntax that Cisco copied from other sources**

8 Cisco is not entitled to copyright protection for its use of command syntax in the form
 9 “[verb] [object or entity] [additional parameters],” which was used in pre-existing command
 10 languages and is not original to Cisco.

11 Relevant evidence will include:

- 12 • Black Rpt. ¶ 545 (ECF 379-33) (aspects of syntax copied from pre-Cisco CLIs);
 13 *id.* ¶ 561 (commands with syntax [show] [object] [parameters]); *id.* ¶¶ 564–567
 14 (pre-Cisco DECnet commands with syntax [command] [entity]
 15 [parameter/options]); *id.* ¶ 568–70 (Cisco copying of pre-Cisco syntax); Arista
 16 MSJ Opp. Ex. 4 (Li Dep. Tr.) (ECF 508-22) at 154, 145–46 (functionality and
 17 syntax copied from TOPS-20).

18 **5. “Commands” that are not accepted by any Cisco or Arista switch**

19 For numerous asserted “commands,” Cisco has no evidence that the asserted multi-word
 20 commands appear in the form asserted in either Cisco’s or Arista’s works, depriving it of any
 21 factual basis for claiming protection over those commands. Cisco’s representations of these
 22 commands omit necessary words and parameters.

23 Relevant evidence will include:

- 24 • Black Rpt. (ECF 379-33) ¶¶ 182, 491; Black Rebuttal Rpt. App. N (ECF 381-66–
 25 ECF 381-72) (summary of Arista command syntax for 397 incomplete asserted
 26 commands).

1 **6. Any purported selection or arrangement of commands that is not**
 2 **grounded in Cisco’s actual works or that Cisco did not disclose in**
 3 **discovery**

4 A selection of unprotectable elements is only protectable if some creative spark exists in
 5 the selection itself. *Satava v. Lowry*, 323 F.3d 805, 811 (9th Cir.2003) (“[A] combination of
 6 unprotectable elements is eligible for copyright protection only if those elements are numerous
 7 enough and their selection and arrangement original enough that their combination constitutes an
 8 original work of authorship.”). Cisco has never identified any creative principle behind its
 9 selection of CLI commands, or any evidence of creativity in that selection. Moreover, the 508
 10 commands asserted here are taken from multiple asserted works (to the extent those commands
 11 exist, as asserted, in any work) and comprise only a tiny fraction of each such work—indeed, they
 12 comprise only a small fraction of the commands that each such work recognizes.

12 Relevant evidence will include:

- 13 • Cisco’s asserted compilation of commands is a subset of a much larger
 14 compilation actually present in Cisco’s operating systems. *See, e.g.*, Black Rpt.
 15 (ECF 379-33) ¶¶ 692–693 (IOS contains least 16,000 documented CLI commands
 16 by Cisco’s count; better count based on way Cisco counts its asserted commands
 17 here is over 450,000 distinct Cisco IOS commands).
- 18 • Cisco has no evidence that the 508 asserted commands as a set have any existence
 19 outside of this litigation, rather than being driven purely by Cisco’s litigation
 20 claims about what Arista allegedly copied. Black Rebuttal Rpt. (ECF 379-31) ¶
 21 124 (asserted set of 508 commands does not appear in any registration, manual, or
 22 source code).
- 23 • Cisco failure of proof with respect to the selection and arrangement of CLI
 24 commands.

25 **B. Unprotectable Aspects of the Asserted Hierarchies**

26 Cisco’s hierarchies suffer from many of the same defects as its commands, because
 27 Cisco’s asserted hierarchies are simply a lawyer-generated classification of CLI commands. The
 28 relationship of the commands within a “hierarchy” is an unprotected fact or idea. There is

nothing separate or expressive in the “hierarchies” as distinct from the words in the commands themselves, which means that each of the asserted hierarchies is also unprotectable to the extent it comprises unprotectable commands or portions of commands (as outlined in the preceding section). The hierarchies also suffer additional defects, as discussed below.

1. Hierarchies that were created for litigation

Cisco has no evidence that its asserted hierarchies are real parts of its registered works or have any existence outside of this litigation. The only available evidence is that the hierarchies have no such existence, and were created purely for this litigation.

Relevant evidence will include.

- Cisco’s failure of proof. *See also* Black Rebuttal Rpt. (ECF 379-31) ¶¶ 42, 45, 47–48 (hierarchies not identified in source code, drawn from multiple operating systems), 99–102.

2. The idea of grouping commands by their initial words

The idea of creating a command “hierarchy” by grouping CLI commands by their common initial words is not protectable under Section 102(b), and also is not original. Cisco concedes that it is not entitled to protection for the idea of its hierarchies (Cisco MSJ Opp. (ECF 372) at 14), and the Court should so instruct the jury to avoid jury confusion.

Relevant evidence will include:

- This is primarily a legal question. *See* 17 U.S.C. § 102(b). The command-hierarchy concept also was not original to Cisco. *See, e.g.*, Black Rpt. (ECF 379-33) ¶¶ 633–35 (idea of organizing commands in logical tree structure not original).

3. Hierarchies that contain no expression separate from their function

Cisco’s “hierarchies” are purely functional systems of organizing commands (which are themselves not protectable for the reasons stated in Part III.A above), and Cisco has no evidence that they contain any expression separable from their function. *See* 17 U.S.C. § 102(b); *Apple*, 35 F.3d at 1444; *Mattel*, 616 F.3d at 913 (*scenes a faire*). Moreover, Cisco has no evidence of any creativity or original expression contained in the hierarchies that is separate from the creation of the commands themselves.

Relevant evidence will include:

- Cisco failure of proof. *See, e.g.*, Black Rebuttal Rpt. (ECF 379-31) ¶ 60 & n.17, ¶ 78 (discussing Dr. Almeroth’s failure to identify any “creative” or “aesthetic” expression in hierarchies). *See also, e.g.*, Black Report (ECF 379-33) ¶¶ 105-106 (discussing the use of command hierarchies by CLIs); *id.* ¶¶ 682, 684 (functional, not expressive); *id.* ¶¶ 183–90, 529–35, 581 & Apps. D–G (ECF 381-5–ECF 381-8) (industry use of hierarchies); Black Rebuttal Rpt. (ECF 379-31) ¶¶ 57–60 (functional nature; rebuttal of Almeroth opinions); *id.* ¶¶ 73–74 (use of legacy CLI features including hierarchies); *id.* ¶ 140 & App. L.1 (ECF 381-62) (vast majority of networking vendors support the accused hierarchies). *See* Black Report (ECF 379-33) ¶¶ 178–430 (analyzing the wide use of hierarchy-based industry-standard CLIs by Cisco competitors since the mid-1990s); *id.* ¶¶ 545–71 (analyzing pre-Cisco DEC products that used hierarchical multi-word CLIs). *See also* Part III.A (lack of protectability for commands underlying the hierarchies).

C. Unprotectable Aspects of the Asserted Modes and Prompts

1. The names of particular modes and prompts

Cisco concedes that its individual mode names and prompts are not protectable, and claims copyright protection only for its “particular arrangement of modes and prompts.” ECF 552-1 at 34. The Court should therefore instruct the jury that the names of individual modes and individual prompts are not protectable.

Relevant evidence will include:

- Cisco concession. *See* ECF 552-1 at 34.

2. Any “selection” or “arrangement” of modes and prompts that is not grounded in an actual work or that Cisco did not disclose in discovery

Cisco’s asserted “arrangement of modes and prompts” is also not entitled to copyright protection because it is a creature of Cisco’s litigation strategy. Cisco is again asserting only a small subset of the actual arrangement of modes and prompts available in each work, dictated solely by what Cisco claims has been copied. Cisco has no evidence that this selection of modes

and prompts is expressive, or has any existence whatsoever except that it is what Cisco's attorneys believe is similar in Arista's operating system.

Relevant evidence will include:

- Cisco's failure of proof. Cisco has no evidence that this "particular arrangement of modes and prompts" was conceived or created by anyone at Cisco outside of this litigation, nor has Cisco identified any creative principle behind its choice of modes and prompts at issue, or any evidence of creativity.
- Cisco's actual modes and prompts in each asserted work are much more extensive than those it asserts here. *See, e.g.,* Arista MSJ Opp. Ex. 35 (ECF 380-43) (Cisco user manual listing 70+ non-asserted modes and prompts in a single version of Cisco IOS).
- Arista's selection of modes and prompts is much broader than the accused set. *See, e.g.,* Black Rebuttal Rpt. (ECF 379-31) ¶ 23; Wong Decl. Ex. 10 (Tr. Ex. 9051) (listing non-accused Arista modes/prompts).

3. The idea of making certain commands available only in certain modes

The function of making certain commands available only in certain modes is an unprotectable idea, and should be identified as such for the jury. 17 U.S.C. § 102(b). Moreover, it was common in pre-existing command languages and not original to Cisco. Cisco has identified no creative expression separable from the idea of creating a functional CLI with separate functional "modes" for standard users, privileged users, and global and interface configuration modes. Cisco simply used a combination of legacy modes and prompts (from pre-Cisco systems) that flows naturally from the types of functional modes needed to implement a CLI.

Relevant evidence will include:

- Cisco used pre-existing modes and prompts from other systems. *See* Arista MSJ (ECF 329) at 16–17; Black Rpt. (ECF 379-33) ¶¶550–551 (TOPS-20 supported both Exec and Privileged modes); *id.* ¶ 580 (SUMEX system used privileged and non-privileged modes, with # and > prompts; copied by Loughheed); Loughheed

Dep. Tr. (ECF 378-22) 363-371; Black Rpt. (ECF 379-33) ¶ 636 (pre-Cisco use of privileged/non-privileged modes).

- Modes and prompts are a purely functional system. *See* Black Rebuttal Rpt. (ECF 379-31) ¶¶ 61–62 (modes are functional method of operation; no evidence of creative expression). Functional constraints of creating a CLI that will be usable. *See supra* Part III.A; Black Rpt. (ECF 379-33) ¶ 297 (Dell use of common modes based on customer requirements).
- Numerous other networking companies use all of the same asserted modes/prompts. Black Rpt. (ECF 379-33) ¶¶ 178–79 (summary); Black Rebuttal Rpt. (ECF 379-31) & Black Am. App. C (ECF 381-39) (summarizing other vendors' use of identical set of modes/prompts); Black Rpt. (ECF 379-33) ¶ 204 (AdTran AOS uses same set of CLI modes/prompts); *id.* ¶ 215 (Alcatel); *id.* ¶ 222 (Allied Telesis); *id.* ¶¶ 233–41 (Avaya, Nortel & Lucent); *id.* ¶¶ 247–51 (Brocade & Foundry); *id.* ¶¶ 264–70, 272 (Dell & Force10); *id.* ¶¶ 305–07 (D-Link); *id.* ¶¶ 313–17 (Edge-Core); *id.* ¶¶ 323–27 (Ericsson); *id.* ¶¶ 328–29 (Redback Networks); *id.* ¶¶ 338–40 (Extreme Networks); *id.* ¶¶ 347–50 (HPE); *id.* ¶¶ 367–69 (Juniper); *id.* ¶¶ 384–86 (Lenovo, IBM & BNT); *id.* ¶¶ 391–93 (Netgear); *id.* ¶¶ 396–402 (NextHop, acquired by Arista); *id.* ¶¶ 407–09 (Oracle & Sun); *id.* ¶¶ 418–20 (Procket). *See also* Wong Decl. Ex. 7, Kasten (Juniper) Dep. Tr. at 62:10-19 (command modes [REDACTED]), 62:23-63:17 ([REDACTED]), 63:20-64:13 ([REDACTED]) Arista MSJ Opp. Ex. 5 (Cato (Dell) Dep. Tr.) (ECF 509-1) at 37:23-38:14 (customers expect familiar command modes); Wong Decl. Ex. 9, Venkatraman (HP) Dep. Tr. at 64:2-21 ([REDACTED]) [REDACTED]

D. Unprotectable Aspects of the Asserted Command Responses

Cisco's asserted command responses (listed at ECF 552-1, pages 80–96) are largely unprotectable for the same reasons as its commands. Much of the content of the asserted portions

of command responses is drawn from the same standards-driven terminology as the commands, and is equally necessary to implement the functions and parameters set by various formal industry standards. Thus, Cisco’s claims that individual snippets of its command responses are protectable also fail under the copyright law’s originality requirement as well as Section 102(b). *See supra* Part III.A. Also, Cisco again cannot prove that the command responses it asserts here have any real existence as a discrete “collection of outputs” outside of this litigation, rather than being cherry-picked here to support Cisco’s litigation claims.

Relevant evidence will include:

- Individual command-response snippets are not original creative expression, but driven by functions and technical standards. *See, e.g.,* Black Rpt. (ECF 379-33) ¶¶ 637–41 (asserted response snippets are minimal descriptive phrases describing features and functionality, constrained by need for clarity and standard terms); Wong Decl. Ex. 11 (Liu Dep. Tr.) at 167–72.
- Failure of proof that “collection of outputs” existed prior to this litigation. No evidence of authorship or creation of asserted “collection of outputs.” *See* ECF 552-1 at 80–96 (asserting partial snippets from 38 responses); Black MSJ Decl. (ECF 381) ¶ 71 (over 79,000 command responses appear in Cisco IOS alone).

E. Unprotectable Aspects of the Asserted Help Descriptions

1. Pre-existing industry terminology and elements dictated by external constraints

All of Cisco’s asserted help descriptions (also called help strings or helpdesc) are unprotectable because they contain no creative expression, but are purely functional parts of an unprotectable help system, driven by the same industry-standard and functional constraints as the commands. *See supra* Part III.A.

Relevant evidence will include:

- Black Rebuttal Rpt. (ECF 379-31) ¶¶ 143–145 (help strings are merely functional phrases describing what commands do), Black MSJ Decl. (ECF 381) ¶ 73; Declaration of John R. Black in Support of Arista’s Response to Cisco’s

Submission Re Protectable Elements (“Black Decl.”) Ex. 1 (Black Supplemental Report) ¶¶ 60–63, 68 (extensive use of generic functional terms and expressions used in industry before Cisco); *id.* Exs. 2–4 (Apps. O, P & Q) (same); Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 63 (example: pre-Cisco use of “Transmission Control Protocol”); *id.* ¶¶ 66–67 (example: RFC 1213 source for “identification of the contact person for this managed node”); *id.* ¶ 93 (“the bulk of the key terms and phrases used in their help strings were actually created outside of Cisco and adopted wholesale by Cisco engineers”); *id.* ¶¶ 76–77 (limited options mean multiple authors likely to create same strings independently; Wong Decl. Ex. 12 (Lougheed Dep. Tr.) at 587:25–588:5; Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 78 (low degree of overlapping help strings consistent with functional need to implement standard technical features / protocols).

- Help strings contain no creative expression, nothing except functional terms used throughout the industry to provide a functional help system. Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 58 (help strings part of a functional “system”; similar systems used throughout industry); *id.* ¶ 67 (severe constraints on author “choosing short phrases to describe strictly-defined terminology”); *id.* ¶ 68 (absence of creativity).

2. Unprotectable words and short phrases

In addition, like the commands, the help descriptions are unprotectable under the short words and phrases doctrine. *See supra* Part III.A.

Relevant evidence will include:

- *See* Cisco Submission (ECF 552-1) at 98–110 (listing asserted help descriptions); Black Decl. Ex. 1 (Black Supp. Rpt.) ¶¶ 69–72 (summarizing length of help descriptions; 302 of originally asserted 441 strings were 5 words or less); *id.* ¶ 95 (majority of asserted IOS help strings are 4 words or less); *id.* ¶ 99 (more than half of asserted IOS-XR help strings are only 2 or 3 words long; vast majority are 6 words or less).

1 **3. Any “selection” or “arrangement” of help descriptions that is not**
 2 **grounded in an actual work or that Cisco did not disclose in discovery**

3 Cisco also has no evidence that the specific “collections of help descriptions” asserted
 4 here (purportedly as an original compilation authored by Cisco) have any existence outside of this
 5 litigation, or any evidence of creativity in any such selection or arrangement.

6 Relevant evidence will include:

- 7 • Failure of proof as to any pre-litigation existence of the asserted compilation.
 8 *See, e.g.*, Black Decl. Ex. 1 (Black Supp. Rpt.) ¶¶ 78, 80 (Cisco IOS interface
 9 contains 52,290 unique help strings; Cisco originally asserted a maximum of 336
 10 unique help IOS strings, or ~0.6%)); *id.* ¶¶ 94–96 (9/27/16 assertions abandon
 11 124 asserted IOS help strings, leaving a total of 212 distinct IOS help strings
 12 asserted); *id.* ¶¶ 97-100 (9/27/16 assertions of 213 distinct IOS-XR help strings
 13 include only 0.4% of help strings in IOS-XR). No evidence of authorship of
 14 complete compilation as opposed to discrete help strings. *See* Wong Decl. Ex. 12
 15 (Lougheed Dep. Tr.) at 583:7–11, 584:17–19, 626:21–23 (Cisco is asserting
 16 “entire ensemble” or “entire package” of help strings); Black Decl. Ex. 1 (Black
 17 Supp. Rpt.) ¶ 80 (discussing Lougheed testimony).²

18 **4. The idea of an interactive help system in a CLI**

19 Finally, providing a help system like the one reflected in the asserted help descriptions
 20 here is an idea or system—and a common functional feature of networking interfaces throughout
 21 the industry—and is not protectable. 17 U.S.C. § 102(b). The jury should be instructed that the
 22 idea of providing interactive help functionality and descriptions of available commands within a
 23 CLI is not original to Cisco, and is not protectable under its copyrights.

- 24 • *See* Black Decl Ex. 1 (Black Supp. Rpt.) ¶¶ 23–24; Wong Decl. Ex. 12
 25 (Lougheed Dep. Tr.) at 506:6–18; Black Decl. Ex. 1 (Black Supp. Rpt.) ¶ 58

26 ² Comparison of Cisco’s original (ECF 550) and “corrected” submission (ECF 552) shows that
 27 Cisco removed roughly 30 more help strings from the “corrected” submission. This further
 28 reduces the percentage of strings asserted—and confirms that there is no pre-existing “set” or
 compilation of help strings at issue, but only the litigation judgment of Cisco’s lawyers and
 experts.

(industry-wide use of similar help systems); Black Rpt. (ECF 379-33) ¶ 557
(TOPS-20 supported similar interactive help system).

F. Unprotectable Aspects of the Asserted Manuals

To the extent that Cisco alleges infringement based on similarities in manuals that derive from underlying similarities in CLI commands, responses, modes and prompts, or help descriptions, or terms and parameters from industry standards, the asserted text is unprotectable to the same degree and for the same reasons described above.

G. Additional Unprotectable Aspects of the Asserted Works

1. Cisco's overall selection of CLI elements

The same defects that defeat Cisco's claims that each category of asserted CLI elements is protectable also infect its broader claim (to the extent it has asserted one) that the combined selection of all five categories is protectable. Cisco has no evidence that the overall selection of CLI elements asserted here exists at all apart from this litigation. (See above for Arista's evidence that Cisco's assertion of elements in each category is selective and has no basis in Cisco's actual works, and that the actual overall selection of elements in Cisco's CLI is much broader for each category.) Cisco also has no evidence that the overall selection of CLI elements asserted here contains any creative spark, as required to support any compilation claim based on a compilation of unprotectable elements. *See Satava*, 323 F.3d at 811.

The Court should reject Cisco's overall selection of CLI elements as unprotectable unless and until Cisco presents convincing evidence that its specific selection of CLI elements asserted here both (1) exists outside this litigation and (2) contains some spark of creative expression in the arrangement itself (from Cisco's authors, not its lawyers). Needless to say, any such claim by Cisco must be limited to what Cisco disclosed in discovery.

2. Common CLI features and functions

Cisco has at times raised several other aspects of the CLI that are not confined to one of the specific categories above, and that are clearly not protectable under the law. These, too, should be identified to the jury to avoid confusion and potential decision on an improper basis.

1 First, the Court should instruct the jury that Cisco is not entitled to copyright protection
 2 for the choice to use a text-based CLI, in which command words and arguments are typed in at a
 3 command prompt, as opposed to another means of configuring or managing a device (such as a
 4 graphical user interface). Cisco has repeatedly referred to its choice of a text-based CLI in
 5 attempting to justify its claims that the CLI is protectable. *See* Cisco MSJ (ECF 348) at 2:16–19;
 6 Cisco Protectability Brief (ECF 456) at 1:23–28. However, Cisco has also conceded (as it must)
 7 that the idea of using a text-based interface is not protectable under copyright. *See id.* at 9:13–15.
 8 (The idea is also not original to Cisco, and in fact text-based interfaces were the only type of
 9 interface in use when Cisco created its CLI. Arista MSJ Opp. Ex. 18 (ECF 378-22) at 260:5–9;
 10 Black Rebuttal Rpt. (ECF 379-31) ¶¶ 79–83.) Because there is no dispute that this idea is
 11 unprotectable under Section 102(b), it should be identified as such for the jury.

12 Second, the use of multi-word commands in a CLI to manage or configure a device is
 13 neither original to Cisco nor protectable under Section 102(b). Because this undisputed legal
 14 truth will not be obvious to the jury, it should be explained to the jury as part of the Court’s
 15 analytic dissection, to avoid potential jury confusion and prejudice to Arista.

16 Finally, the function of any asserted feature (such as the function of a particular command,
 17 or a mode of operation, or a command response screen) is not protectable under Section 102(b).
 18 The Court should include this point in its analytic dissection as well, to avoid jury confusion.

19 **IV. SCOPE OF COPYRIGHT PROTECTION**

20 Evaluating the scope of copyright protection is part of the Court’s dissection analysis.
 21 Courts have long acknowledged that factual and functional works are entitled to thinner copyright
 22 protection than fictional or other artistic works. *See Feist Publications, Inc. v. Rural Tel. Service*
 23 *Co.*, 499 U.S. 340 (1991); *Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 563
 24 (1985) (“The law generally recognizes a greater need to disseminate factual works than works of
 25 fiction or fantasy.”). Under Ninth Circuit law, where design choices are highly constrained by
 26 limitations inherent in a certain endeavor, and the range of possible expression is narrow because
 27 of those functional or other limitations, a copyright holder is entitled to only “thin” copyright
 28 protection. *See* Arista Dissection Brief (ECF 455) at 14. Here, the evidence outlined above

1 shows that the asserted CLI elements are factual and functional, and the realistic range of possible
2 expression that would be accepted by the industry was extremely narrow. *See supra* Parts III.A–
3 III.E. Accordingly, copyright protection is “thin” and infringement requires “virtual identity”
4 between the disputed works, rather than the “substantial similarity” required for infringement of a
5 creative work that receives broad protection. *Apple*, 35 F.3d at 1442–43; *Mattel*, 616 F.3d at 915.

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